



UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
Office of Response and Restoration
7600 Sand Point Way
Seattle, WA 98115

February 26, 2019

MEMORANDUM FOR: Unified Command – Lindsey Lake Tanker Truck Spill

FROM: Matthew Bissell, NOAA

SUBJECT: Shoreline Cleanup Assessment and Recommendations

The following observations and recommendations are offered after a visit (2/22/19) to the site of the Lindsey Lake Tanker Truck Spill. The visit occurred 12 days after the release of 4,400 gallons of diesel on I-84 near Lindsey Lake on the Columbia River. At this time, numerous response strategies were effectively placed and well maintained. Seven segments of boom spanning Lindsey Creek were sufficient for current water levels. Boom was clean and no sheen was observed in the creek. Patches of silver sheen were observed in the area adjacent to the highway, east of the peninsula. This sheen was extremely light and was contained within a small area by multiple layers of boom (hard and sorbent). The cold conditions caused the sorbent boom and pads to freeze. This seemed to be temporarily inhibiting the recovery of the spilled product. However, the well-placed booms and rows of sorbent pads (as well as the lake's frozen surface layer) were effective at containing the oil along the shore near the highway. As temperature increases sorbent material will thaw and should become more effective at retaining residual oil.

While Lindsey Lake is a highly altered landscape, adjacent to highway and railroad, the area is important habitat for several species of fish, birds, and mammals. Of concern, the lake and adjoining creeks are habitat for Steelhead and Coho salmon. It is still early in the year for juvenile fish born in Lindsey Creek to begin migrating downstream; typical patterns would predict this migration to occur in early spring. However, due to a warmer than average December and January, it is possible to see an early commencement of this migration at this time. Because diesel fuels are particularly toxic to larval and juvenile stages of these fish, the extent and duration of environmental recovery in this response is important. More resources will be at risk of exposure in April and May than are currently present in the area.

The following are recommendations:

- (1) Continue to monitor for sheen in creek as ice melts and water levels fluctuate. Continue to replace boom as necessary. Should observations or water samples indicate continued or increasing contamination of creek or lake, please notify NOAA (matthew.bissell@noaa.gov).
- (2) The wooded peninsula within Lindsey Lake is important habitat for birds and mammals. Foot traffic through this area should be minimized. Response personnel working in the



hot zone can transport contaminants and drive oily residues into the soft soil. This unintentional burial of contaminants can prolong the natural oil degradation process.

(3) The area of excavation along the highway is adjacent to the wooded peninsula. After back-filling operations are complete, best practice would be to replace any vegetation incidentally removed during excavation.

(4) If excavation and/or back-fill operations are observed to negatively affect water quality, a silt curtain may be used to decrease turbidity and minimize the spread of contaminants.

(5) Water quality analysis should continue in creek and lake until source oil is no longer detectable.



Figure 1: Foot traffic should be minimized in area along peninsula adjacent to hot zone.



Figure 2: Potential area for replanting native species after excavation.

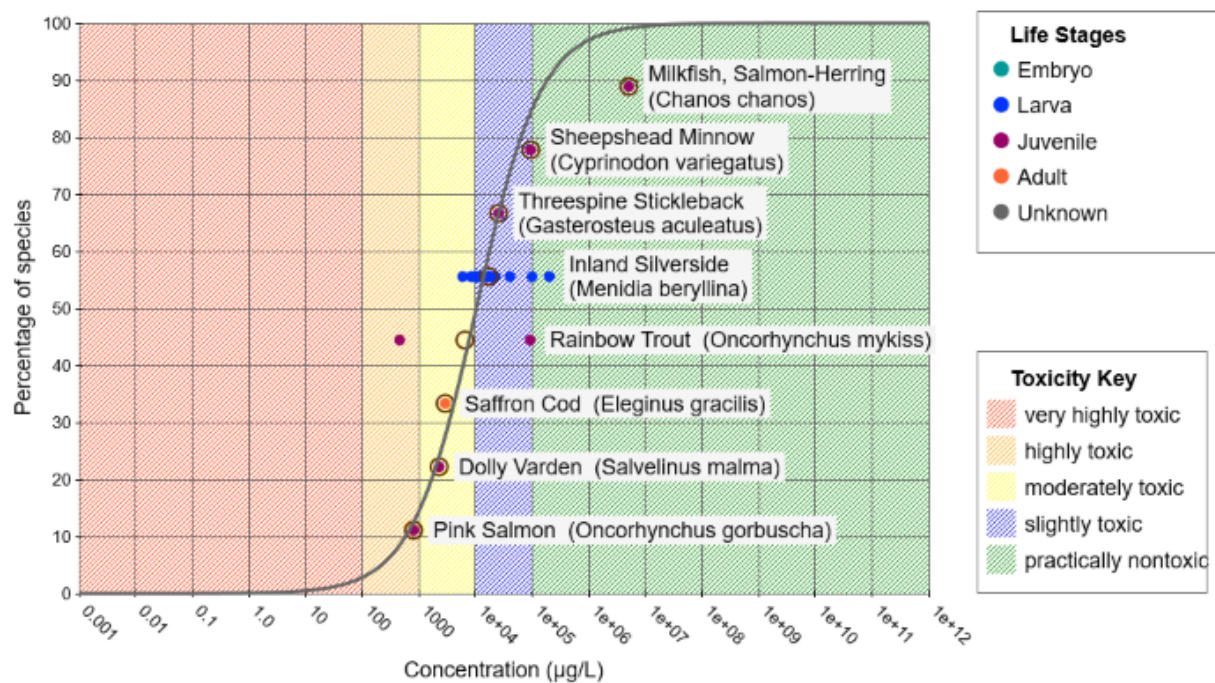


Figure 3: Species sensitivity (LC50) index for diesel fuel.